IN THE SPECIFICATION:

Please replace paragraph number **[0001]** and the section title immediately preceding it with the following rewritten title and paragraph:

~~CROSS-REFERENCE~~CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of application Serial No. 09/429,392, filed October 28, 1999, now United States Patent ~~6,316,824 B1,~~ 6,316,824, issued November 13, 2001, which is a divisional of application Serial No. 09/193,469, filed November 17, 1998, now United States Patent 6,091,136, issued July 18, 2000, which is a divisional of application Serial No. 08/878,935, filed June 19, 1997, now United States Patent 5,879,965, issued March 9, 1999.

Please replace paragraph number **[0005]** with the following rewritten paragraph:

[0005] Traditionally, lead frames are fabricated from a strip of sheet metal by stamping or chemical milling operations. There are many different metal alloy compositions which are commercially available for producing lead frames. For example, Rao R. Tummala and Eugene J. Rymaszewski, "Microelectronics Packaging Handbook," Table 8-4, 1989, provide 16 different alloys available from 9 different manufacturers. Lead frame material selection depends on many factors such as cost, ease of fabrication, strength, thermal conductivity, and matched coefficient of thermal expansion (CTE). A close match of CTE between the silicon die and the lead frame is required to avoid chip fracture from ~~differential~~ different expansion rates.

Please replace paragraph number **[0008]** with the following rewritten paragraph:

[0008] While numerous alloys have been developed to solve problems with thermal conductivity, CTE mismatch, and strength, other important ~~factors~~ factors, such as ease of fabrication and ~~cost~~ cost, have not improved as readily.

Please replace paragraph number **[0009]** with the following rewritten paragraph:

[0009] Conventional methods for making lead frames for integrated circuit devices are described in U.S. Patent 3,440,027. The use of a plastic support structure in a method of forming

metal lead frames is described in U.S. Patent 4,089,733 (hereinafter ~~the "'733" patent~~ "the '733 patent"). The plastic support structure of the '733 patent solves the problem of deformed and misaligned lead fingers resulting from stress during the bonding process by supporting the lead fingers with a plastic structure. However, the '733 patent requires a metal lead frame in addition to the plastic support structure with its attendant costs. A method of manufacturing multilayer metal lead frames is disclosed in U.S. Patent 5,231,756 (hereinafter ~~the "'756" patent~~ "the '756 patent"). The '756 patent provides an improvement in aligning power and ground planes for use in a multilayer lead frame where such planes are necessary. However, the number of steps required to manufacture such multilayer lead frames will not solve the problem of decreasing costs. In short, none of the related art appears to disclose methods of producing low-cost lead frames made from materials not structurally based on metal.

Please replace paragraph number **[0011]** with the following rewritten paragraph:

[0011] The present invention comprises plastic lead frames coated with conductive materials or having conductive materials therein suitable for use in IC packaging and methods for fabricating the same. The invention may be used in the production of ICs.

Please replace paragraph number **[0025]** with the following rewritten paragraph:

[0025] An understanding of the detailed description of the invention is facilitated by reference to the drawings, FIGS. 1 through 7. Each of the four embodiments of the invention ~~solve~~ solves the problem of reducing cost of producing lead frames for IC chip packaging. Additionally, at least two of the embodiments improve the following characteristics: CTE matching of the lead frame, silicon, and adhesive, anti-corrosion, anti-oxidation, and in-line cure of the die attach adhesive.

Please replace paragraph number **[0029]** with the following rewritten paragraph:

[0029] Drawing FIG. 4 shows a magnified cross-section of a plastic lead finger 12 of the preferred embodiment of the inventive plastic lead frame 10 (not shown). The inner plastic

lead frame structure 20 is made of a conventional plastic or polymer material. The surrounding conductive coating 22 is an intrinsic conductive polymer, such as polyaniline, or copper. The polyaniline layer is of thickness ~~"d".~~ "d." The minimum thickness "d" necessary for suitable electrical conductivity is governed by the following equation:

$$d = 1 / (\pi f \sigma \mu)^{1/2}$$

where f is the maximum frequency of the electrical device, μ is the permeability of the polyaniline layer, and σ is the conductivity of the polyaniline layer. For example, where f is 1 x 10^9 Hz, σ is 1 x 10^5 (~~Ohm·m~~Ohm · m)$^{-1}$ and μ is 1.26 x 10^{-6} Henry/m, a thickness of 50 μm is needed for the polyaniline coating.

Please replace paragraph number **[0031]** with the following rewritten paragraph:

[0031] Drawing FIG. 6 shows an IC die 218 encapsulated by material 230 connected to a LOC type lead frame 200 having lead fingers 212 connected to the bond pads on the active surface of the IC die 218 and connected to electrical circuits (not shown) on a substrate 220, such as a printed circuit board or the like. The lead fingers 212 may be shaped in any suitable type configuration for connection to the IC die 218 and the electrical circuits of substrate 220. The encapsulating material 230 may be of any well known suitable type and may include suitable filler material therein.

Please replace paragraph number **[0032]** with the following rewritten paragraph:

[0032] Drawing FIG. 7 shows an IC die 318 encapsulated by material 340 connected to a conventional type lead frame 300 having lead fingers 312 and a die paddle 316 supporting the IC die 318. The lead fingers 312 are connected to the bond pads 314 on the active surface of the IC die 318 by wires 330 and are connected to electrical circuits (not shown) on a substrate 320. The lead fingers 312 may be shaped in any suitable type configuration for connection to the IC die 318 and the electrical circuits of substrate 320. The encapsulating material 340 may be any well known suitable type and may include suitable filler material therein.

IN THE DRAWINGS:

The attached sheet of drawings includes changes to FIGS. 6 and 7. This sheet, which includes FIGS. 6 and 7, replaces the original sheet including FIGS. 6 and 7.

Specifically, both FIGS. 6 and 7 were previously amended to delete reference numerals "200" and "300," respectively, because they were not found in the specification. FIG. 6 has been revised to add the reference numeral --200-- with appropriate lead line (see paragraph **[0031]** in the specification); and FIG. 7 has been revised to add the reference numeral --300-- with appropriate lead line (see paragraph **[0032]** in the specification). No new matter has been added.